

Cooperation Between Vocational School and Enterprise to Strengthen Teaching Staff

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Abstract: School-enterprise cooperation for higher vocational education is an indispensable basic conditions. In this paper, the current status of engineering professional teachers is analysed, it is presented to use school-enterprise cooperation to enrich and enhance the vocational teachers, strengthen the teacher development, improve the education quality. Finally through the teaching staff construction in Software College, Zhongyuan University of Technology, some measures is introduced to enhance the teacher ability of engineering practice.

Keywords: Vocational Education, School-Enterprise Cooperation, Teaching Staff

1 Introduction

China now is in the critical period of accelerating industrialization and urbanization, this time attached great importance to develop vocational education is the world's successful practices and experiences, China is no exception. Integration of educational resources and improving teaching methods is the current core of vocational education reform. The most important resources integration is to integrate the resources of schools and businesses; to improve teaching methods include many elements, most notably with the implementation of engineering. These two points is the core of one, is to promote and implement school-enterprise cooperation.

The professional education should solve many problems, but a fundamental point is that school-enterprise cooperation. School-enterprise cooperation embodies the vocational education and economy, industries and enterprises most closely associated. Through school-enterprise cooperation, we can solve the current vocational education in the development of a series of related issues. Businesses to provide internship sites for students, internships facilities can enable students to obtain direct job experience, consistent with the employing unit management experience, clear career orientation, as well as certain practice income, so as to solve the vocational school equipment, facilities and lack of student internships to find a job problem. In turn, schools can provide enterprises with certain techniques and skills of the workers, save companies day to day operating expenses, to resolve the current shortage of migrant workers often mentioned, craftsmen shortage problem, the urgent need for enterprise employees to meet the continuing education requirements to enable vocational school become both a business school is the production-type schools, so that enterprises become both a business school is learning-oriented enterprises, formed in the community serve multiple purposes, mutual benefit and win-win relationship^[1].

Vocational school-enterprise cooperation is an important channel for cultivating talents to meet the market, is beneficial to foster high-skilled talents, and improves their ability to adapt for future work. With the help of school-enterprise cooperation, schools can better understand the company demand for talent, improve the teaching content and methods continuously, such vocational education can serve social practice, shorten the running-in period between graduates and enterprises, reduce the business recruitment costs, and effectively enhance the competitiveness of enterprises. Therefore, cooperation between school and enterprise is a win-win strategy.

2 The Current Status of Vocational Engineering Professional Teachers

At present, the teachers with professional theoretical knowledge and practical ability are lack. There are several problems to be solved. First, teacher source is single. Many full-time teachers in vocational

college are from university graduates, from school to school, lack of business experience and practical experience. Second, Teachers are not aware of the responsibility to serve the community, industries and enterprises, ignore improving their practical ability. Third, School and enterprise cooperation mechanisms are not perfect, the cooperation is not deep-seated, and some enterprises do not want to receive teachers to participate in the post practice. Because of the serious lack of practice equipment, there are no conditions where teacher participate in practice. Fourth, part-time teachers lag behind, can't form a stable part-time teachers staff, difficult to maintain teaching continuity. Part-time teachers are not trained in education theory and methods, combined with a lack of understanding students, can not develop individualized teaching. Fifth, there are no teacher development programs and teacher development goals^[2].

Characteristic of higher vocational education determines the vocational teachers must be double qualified teacher. School should establish the procedures and mechanisms, which allow teacher rational flow between schools and enterprises, encourage in-service teachers to practice alternately. And teachers should provide scientific and technological services, strengthen contact and cooperation with production and research departments, broaden their horizons, understand the market demand, and speed up the teaching content and teaching reform.

3 School-Enterprise Cooperation to Strengthen Vocational Teachers Construction

3.1 Improving the Teacher Appointing System

First and foremost, to enrich and enhance double qualified teacher, school should change attitudes to further deepen the reform of personnel system, develop teacher's construction planning and stable faculty teaching staff policy. Policy measures should be coordinated, funds should be full, full-time employment and part-time employment are combined.

School should introduce business talents to enrich teachers. When socio-economic and enterprise development is good, enterprise talent is rarely attracted by school salary. It is unlikely that Business talents are willing to teach in school. Just when they can not get a higher salary, enterprise technical staff can return to school. Therefore school must pay incentives to attract large talents with practical experience in production line to teach in vocational colleges.

Vocational school should establish part-time teacher staff, appoint a large number of part-time teachers to reduce the cost of education, improve teaching effectiveness. School introduces actively enterprises engineers with rich practical experience and teaching ability as part-time teachers, they bring school new technology used in production line, are familiar with the new social requirements on the employee quality. It is a long-term task to build a relatively stable part-time teachers, which will improve the structure of vocational teachers, adapt to changes in personnel training and professional requirements, is not an expedient to make up the inadequate vocational teachers.

3.2 Building a Variety of Practice and Training Platform

According to the actual demands of enterprises employing, higher vocational colleges should make full use of existing faculty strengths, organize various training courses to carry out vocational training to the employees. Using the advantages of human resources, technology, colleges send teachers to launch technical extension, advice, poverty reduction and so on, to participate in the scientific and technological development projects, to help enterprises to solve technology problems, to promote technical innovation and technology transformation. Regular full-time teacher training system should be established, enterprise and school provide opportunities for teachers to extensive contacts with the industries and enterprises, arrange professional teachers to relevant enterprises, participate in production, construction and management. Through professional practice, teachers can understand the status and development trend about production, technology, process, equipment; add new technologies and techniques of the production site in the teaching timely. Teachers can also ask engineering and technical personnel some questions during teaching.

4 The Measures to Enhance the Teacher Ability of Engineering Practice

In 2003, the Ministry of Education introduced relevant policies and documents about the software vocational and technical college, and 35 universities set up a demonstration software vocational and technical college throughout the country, the general education system for two years. As the first demonstration in Henan province, software vocational and technical college, Zhongyuan University of Technology, began two-year junior college students enrolled from 2004. Our college, adhere to Cooperative teaching with enterprise, collaborate and exchange all round with well-known software enterprises in Beijing, Shanghai, Wuhan, Qingdao, Zhengzhou and other areas. They joint teacher training actively, Enterprises not only research and set up training objectives, plans, content and methods, but also bear the part training task^[3].

The teaching staff is the fundamental guarantee to improve the teaching quality. Software talent training need the double qualified teachers, who have high practical ability and master of international norms and software development standard. Our staff is composed of three parts one part is full-time professional teachers, primarily responsible for Professional development and main technical course teaching, another part is teachers appointed in other departments, responsible for the professional theory courses teaching, the other is part-time teachers, come from enterprise, is responsible for teaching of practical course.

4.1 Sending teachers to corporate training

School supports our teachers to work or train in cooperative enterprises, participate in the actual project, improve their practical ability and software engineering capabilities. Young teachers are sent regularly to participate in corporate training, obtain qualification certificates issued by well-known software company, and they are encouraged to obtain industry qualification certificates. teachers are encouraged to participate in software technology conferences and software talent education seminars to raise the teaching quality, which adapts to the rapid software technology development and social demand for software professionals. In recent years, according to the needs of teaching, most professional teachers have been sent to well-known software enterprises such as IBM, Tarena Technologies Inc., iSoftStone Inc., participation in software development and management of the actual project. Some teachers use student innovation center to do the project for the enterprise. Currently over 80% of professional teachers are trained in software companies, improve their software engineering capability and professional quality.

4.2 Hiring outstanding technical staff and managers as part-time Teachers

In order to introduce cutting-edge engineering theory and practical development techniques, and maintain the knowledge update rate, Our school cooperate with the companies, which sent their outstanding technical staff and managers as part-time teachers to conduct practical issues and training. This has the following benefits: First, schools can make up for teacher shortage in skill training courses^[4]. Second, these part-time teachers not only teach technology, but also bring the software project management and corporate culture. Third, they can also bring the actual software engineering projects, which are good case teaching materials. Fourth, they can improve the overall teaching quality in schools. Fifth, they are the business elite, have a great role in promoting deeper school-enterprise cooperation.

4.3 Hiring enterprise experts to hold lectures

In order to know timely the software technology and industry development, broaden their vision, school invites regularly business executives or senior engineers to give students special lectures, which introduce the news, technology and development about software industry, deepen their understanding of IT industry talent demand, clear their own development, stimulate their enthusiasm for learning. Business software engineers are invited to their new product or project. The enthusiasm of students and businesses have mobilized to enhance the mutual understanding. Tutor group is composed of company engineers and school teachers, chairs student innovation center, where students participate company's actual projects practice. With the guide of tutors, students strengthen their motivation, improve practical ability. And enterprise is convenient to recruitment.

4.4 Implementing Order-orientated Training Mode

Summarizing the experience of higher education, our college implements order-orientated training. At present software outsourcing from Japan and software testing need a lot of blue-collar skilled workers. Our college has signed the cooperation agreements with several enterprises, set up a pilot class of 30 individuals, implement order-orientated training. College and the business plan together about lessons, teaching content, play down professional boundaries, strengthen skills training, implement special training. A lot of time is arranged for students to practice the enterprise training, to verify knowledge learned. And the students experience job training, employ smoothly after graduation. Through the session of students training, our professional teachers progress greatly^[5].

5 Conclusion

School-enterprise cooperation can help enrich and enhance the vocational teachers, strengthen the teacher development, improve the education quality, is a win-win strategy. And it should be promoted in higher vocation college. It is necessary to develop and implement laws and regulations to promote school-enterprise cooperation, establish and improve government-led, industry guidance, enterprises to participate in the school system and incorporated into the national education system, the scope of a major reform of the pilot.

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